DOCUMENT RESUME

ED 340 728 TM 017 773

TITLE	Iowa Tests of Educational Development: Administrator's Summary. Report No. 9-60329.
INSTITUTION	Riverside Publishing Co., Chicago. IL.
PUB DATE	90
NOTE	29p.; A promotional booklet advertising a commercially-available test.
AVAILABLE FROM	Riverside Publishing Company, 8420 Bryn Mawr Avenue, Chicago, IL 60631.
PUB TYPE	Guides - Non-Classroom Use (055) -- Reports - Descriptive (141)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Achievement Tests; Expressive Language; High Schools; *High School Students; Information Sources; Literary Criticism; Mathematics Tests; Science Tests; Social Studies; Standardized Tests; *Student Development; Test Items; Test Manuals; *Test Use; Vocabulary Skills
IDENTIFIERS	*Iowa Tests of Educational Development; Mathematical Thinking; Test Batteries

ABSTRACT

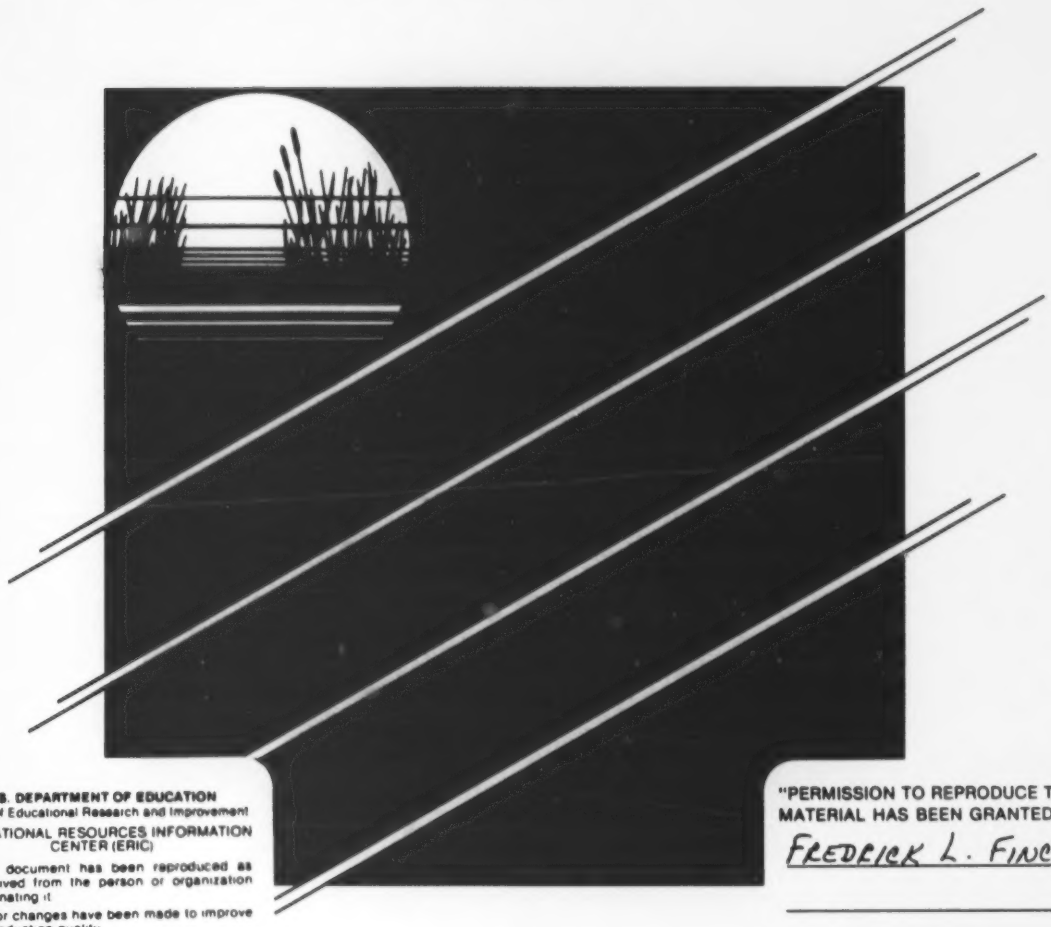
This summary for administrators describes the Iowa Tests of Educational Development (ITED), which are broadly based achievement tests for grades 9 through 12. The seven tests in the battery provide information about students' development in skills that are among the fundamental goals of secondary education. Emphasis is on the objectives that represent the long-term goals of instruction. The seven tests are: (1) Test E--Correctness and Appropriateness of Expression; (2) Test Q--Ability To Do Quantitative Thinking; (3) Test SS--Analysis of Social Studies Materials; (4) Test NS--Analysis of Natural Science Materials; (5) Test L--Ability To Interpret Literary Materials; (6) Test V--Vocabulary; and (7) Test SI--Use of Sources of Information. Tests are presented in two overlapping levels, Level I for grades 9 through 10, and Level II for grades 11 through 12. A description is given of each test, and some sample questions are included. Test development, scoring, and support materials for test interpretation are reviewed. The ITED battery was standardized in April and May of 1988 with more than 17,000 students. Reliability and validity are discussed, and the score reports furnished by the publisher are reviewed. (SLD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED340728

9-60329

ADMINISTRATOR'S SUMMARY



U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

FREDERICK L. FINCH

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

IOWA TESTS OF EDUCATIONAL DEVELOPMENT®

BEST COPY AVAILABLE

TM017773

THE RIVERSIDE PUBLISHING COMPANY

ITED

A Tradition of Excellence in Assessment

1929

The University of Iowa institutes the Iowa Academic Meet to provide good students with the type of recognition usually accorded to athletes.

1931

The forerunner of the *Iowa Tests of Educational Development*, the *Iowa Every-Pupil Tests*, is introduced.

1942

The publication of the First Edition of the *ITED*, Forms X-1 and Y-1, under the direction of E. F. Lindquist, signals a new emphasis on measuring the general educational development of high school students.

1947–87

The Second through Seventh Editions of the *ITED* are published by The University of Iowa.

1972

A condensed battery is introduced to respond to users' needs.

1988

The Riverside Publishing Company becomes publisher of the *Iowa Tests of Educational Development*.

Forms X-8 and Y-8 of the *ITED* are published after a new national standardization.

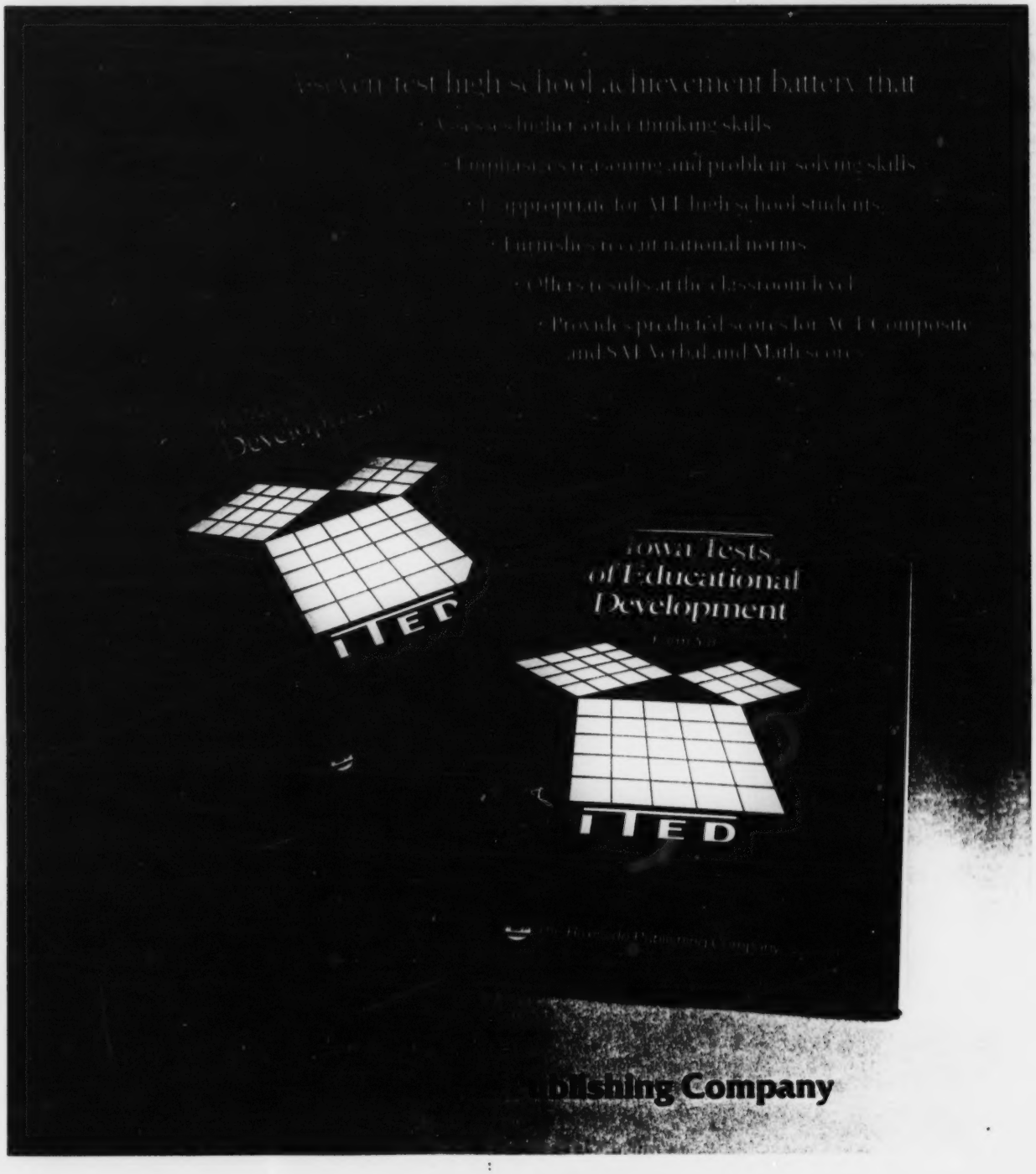
The Riverside Publishing Company

Copyright © 1990 by The University of Iowa. All rights reserved. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or by any information storage or retrieval system without the prior written permission of The Riverside Publishing Company unless such copying is expressly permitted by federal copyright law. Address inquiries to Test Division Permissions, The Riverside Publishing Company, 8420 Bryn Mawr Avenue, Chicago, IL 60631.

ABCDEFGHIJ—BL—99876543210

ITED®

TESTS THAT GO BEYOND THE BASICS



BEST COPY AVAILABLE

PROGRAM SUMMARY

Name of Test Battery

Iowa Tests of Educational Development® (*ITED®*), Eighth Edition

Purpose

To provide teachers, students, and others with objective information about students' progress toward many of the long-term goals of secondary education

Prepared at The University of Iowa under the direction of

Leonard S. Feldt, Robert S. Forsyth, and Stephanie D. Alnot

Forms

Form X and Form Y

Grade Levels

Two overlapping levels: Level I for Grades 9 – 10, Level II for Grades 11 – 12

Tests

Test E: Correctness and Appropriateness of Expression; Test Q: Ability to Do Quantitative Thinking; Test SS: Analysis of Social Studies Materials; Test NS: Analysis of Natural Science Materials; Test L: Ability to Interpret Literary Materials; Test V: Vocabulary; and Test SI: Use of Sources of Information

Test Format

Multiple-choice items contained in a single test booklet for both levels

Testing Time

4 hours and 10 minutes of actual testing time

Scoring

The Riverside Scoring Service

Scores

Standard scores, percentile ranks (national and/or local), objective/skill cluster percents correct, and predicted score ranges for ACT and SAT scores

Excellence . . . A Fifty-Year *ITED* Tradition

	1940's	1990's
Critical Thinking	*"Essentially the tests are intended to measure pupils' ability to do critical thinking . . . how well [they] can use what [they have] learned in acquiring, interpreting, and evaluating new ideas, in relating new ideas to old, and in applying generalizations to new situations or in the solution of problems."* E. F. Lindquist, Founder Iowa Testing Programs, 1948	*"The Eighth Edition continues the trend begun in earlier editions . . . toward assessing students' ability to bring to bear critical analytical evaluative skills. These skills represent objectives of instruction that transcend specific course content."* *Teacher, Administrator, and Counselor Manual* Eighth Edition, 1989
Authentic Achievement	*"The tests measure as directly as possible the ultimate objectives of the entire school program . . . the lasting and ultimate outcomes–not only of an effective course of school instruction, but also any other genuinely educational experience."* E. F. Lindquist, 1948	*"The tests measure skills that are important in adolescent and adult life, abilities that constitute a major part of the foundation for continued learning. Standardized tests serve their most valuable function when they focus on the extent to which students are achieving the long-range educational goals toward which the various methods and materials converge."* *Teacher, Administrator, and Counselor Manual* Eighth Edition, 1989

Structure of the *ITED* Battery

Test		Testing Time	Exercises in Each Level: Level I Item Nos.	Level I No. of Items	Level II Item Nos.	Level II No. of Items
Test E:	**Expression**					
	Part 1	30	1–54	54	28–81	54
	Part 2	5	82–96	15	82–96	15
Test Q:	**Quantitative Thinking**	50	1–40	40	21–60	40
Test SS:	**Social Studies**					
	Part 1	15	1–24	24	13–36	24
	Part 2	30	1–36	36	19–54	36
Test NS:	**Natural Sciences**					
	Part 1	15	1–24	24	13–36	24
	Part 2	30	1–36	36	19–54	36
Test L:	**Literary Materials**	35	1–46	46	28–73	46
Test V:	**Vocabulary**	15	1–40	40	21–60	40
Test SI:	**Sources of Information**	25	1–46	46	24–69	46
		250		361		361

The Reading Total Score

Because reading is no longer taught as a separate skill at the high school level, the *ITED* Battery does not test reading comprehension in isolation but in the context of subject-matter tests. Each of three *ITED* content-area tests—Tests SS, NS, and L—assesses students' ability to understand and interpret extended passages. A Reading Total Score is derived from 118 exercises in these three tests. The score is determined from the 36 items in Part 2 of Test SS, the 36 items in Part 2 of Test NS, and the 46 items of Test L. The table on page 24 of the revised *Teacher, Administrator, and Counselor Manual* summarizes the classifications of all the reading items.

Skill Areas of the *ITED* Battery

	Number of Items			
	Level I		Level II	
	X-8	Y-8	X-8	Y-8
Correctness and Appropriateness of Expression (Test E)	**69**	**69**	**69**	**69**
Capitalization/Punctuation	10	12	9	9
Grammar	12	9	7	6
Sentence Structure	13	10	12	13
Organization	7	8	9	7
Diction/Clarity/Word Choice	12	15	17	19
Spelling	15	15	15	15
Quantitative Thinking (Test Q)	**40**	**40**	**40**	**40**
Whole Numbers/Fractions/Decimals	10	10	7	7
Percents	7	8	6	6
Geometry/Measurement	5	5	6	6
Estimating/Rounding	4	4	4	5
Probability/Statistics	4	4	6	5
Exponents	3	3	4	4
Graphs/Tables/Formulas	7	6	7	7
Social Studies (Test SS)	**60**	**60**	**60**	**60**
Literal Comprehension	9	9	4	5
Interpretation of Information	13	11	15	16
Inferences and Relationships	7	10	12	15
Classification of Ideas	5	9	9	7
Evaluation of Sources, Evidence, and Conclusions	18	14	16	12
Author's Position and Techniques	8	7	8	5
Natural Sciences (Test NS)	**60**	**60**	**60**	**60**
Principles of Inquiry/Measurement	3	5	5	5
Interpretation of Information	11	7	7	8
Inferences and Predictions	9	10	11	12
Classification of Ideas	7	4	4	6
Analysis of Experimental Procedures	20	23	21	17
Evaluation of Evidence	5	7	6	8
Generalization and Extension of Ideas	5	4	6	4
Literary Materials (Test L)	**46**	**46**	**46**	**46**
Literal Comprehension	6	6	5	7
Interpretation of Nonliteral Forms	7	6	7	6
Inferences and Relationships	16	13	10	13
Generalizations	5	5	8	7
Literary Techniques/Tone	12	16	16	13
Sources of Information (Test SI)	**46**	**46**	**46**	**46**
Books	5	5	6	5
Dictionaries	5	5	6	6
Organization of Library Materials	5	5	5	5
Encyclopedias/Almanacs	5	5	5	5
Common References	8	8	8	10
Readers' Guide	7	7	6	6
Maps/Atlases	6	6	6	5
Government and Private Agencies	5	5	4	4

Nature of the *ITED* Battery

The *Iowa Tests of Educational Development* are broadly based achievement tests for grades 9–12. The seven tests in the battery provide information about students' development in skills that are among the fundamental goals of secondary education—skills that most students will use throughout their adult lives. The emphasis is not on the more immediate content of high school courses but rather on the objectives that represent the long-term goals of that instruction. These skills include

- understanding what one reads, both for information and for pleasure
- using numerical relationships in mathematical reasoning and problem solving
- recognizing the essentials of correct and effective writing
- critically analyzing discussions of social issues and reports on scientific matters
- recognizing sound methods of scientific inquiry
- using a variety of sources of information

The *ITED* Battery presents a carefully selected sample of tasks that require students to apply their knowledge and higher-order thinking skills in new situations. In many cases, these skills cut across the curriculum; quite often they are the province of not just one department but several. Because the tests stress supracurricular, long-term, commonly held objectives, and because they emphasize inquiry and higher-order thinking skills, the *ITED* are appropriate for virtually all high school students. As such, this battery can be a unique and valuable component of a school's evaluation efforts.

The major uses of the tests are

1. to provide teachers, students, and others with a periodic, objective description of student progress, using scores that permit comparisons between broad areas of achievement at each testing and also permit assessment of student growth within each curriculum area

2. to provide administrators with a dependable basis for judging the relative strengths and weaknesses of the academic portions of the educational program

3. to provide information that reflects the achievement of all students and that is not tied to specific instructional methods or materials in any curriculum area

Related topics in the revised *Teacher, Administrator, and Counselor Manual* (9–60327):

Nature and Purposes of the *ITED* Battery: pages 2–5
Description of the Individual Tests: pages 6–24

Description of the Tests and Sample Exercises

The following pages provide a brief glimpse of typical item types found in the *ITED* Battery. Correct responses are marked with an asterisk. Part 2 of the revised *Teacher, Administrator, and Counselor Manual* contains more detailed descriptions, further samples, and item specification tables in which the test items are classified according to skill, process, and/or content areas.

Test E: Correctness and Appropriateness of Expression

This test is designed to give teachers an indication of students' ability to recognize correct and effective use of standard American English. The aspects of writing tested include mechanics, usage, spelling, diction, sentence structure, and organization.

Test E consists of selections that are patterned after student writing in content and style. They employ description, exposition, and persuasion and are in the form of book reviews, portions of essays, reports, and letters. Levels I and II each contain five selections. Of these selections, three consist of several paragraphs (160–300 words) in which the student must decide whether various underlined portions are acceptable and, if not, which of the alternatives presented is correct or most appropriate. The other two selections each consist of a short paragraph of about 100 words. The accompanying questions deal with the organization and structure of the sentences and the effectiveness with which ideas are developed in the paragraph.

At each level the selections provide a sample of 54 situations representative of the errors and infelicities frequently found in the writing of high school students. In some of the exercises, the primary consideration is fluency, style, or clarity rather than grammar. An attempt has been made to avoid usages and practices on which there is substantial disagreement among language authorities and respected authors. For efficiency, the test does not cover many elementary language arts skills that most high school students have mastered.

Test E does not attempt to measure the more subtle or intangible elements of composition skill, and the student's performance on the test should not be taken as an adequate measure of his or her literary talents or originality of expression. In evaluating a student's writing ability, one must supplement the scores on this test with less objective evidence obtained through composition assignments or other written work.

Sample Exercises

(For each underlined situation the student chooses the best alternative or the "No change" response and marks the corresponding oval on the answer sheet.)

Henry David Thoreau was probably a century ahead of his time, yet his own generation regarded him as <u>quaint old-fashioned and eccentric.</u> (1)

Today, though, America proudly acknowledges that much of <u>your</u> (2) enlightened thinking about the individual and society comes from Thoreau's philosophy of life, which he meticulously recorded in his book *Walden, Or, Life in the Woods.*

1. **A** (No change)
   B quaint old-fashioned, and eccentric.
   ***C** quaint, old-fashioned, and eccentric.
   D quaint, old-fashioned, and also eccentric.

2. **A** (No change)
   ***B** its
   C it's
   D their

Test Q: Quantitative Thinking

The exercises in Test Q present practical problems that require basic arithmetic and measurement, estimation, data interpretation, and logical thinking in order to solve them. The problems are based on realistic situations. A few exercises, primarily in Level II, test more abstract concepts such as precision in measurement, probability, and exponents.

It should be noted that the primary objective of this test is to measure students' ability to use appropriate mathematical reasoning, not to test their computational facility under pressure. To this end, the number of items requiring computation is minimal. Depending on the form and level of the test, students will encounter only 9 to 12 exercises requiring computation. Of these, most involve round numbers or single-digit numbers. On the other hand, one-third of the exercises in each level require students to analyze a problem and select the sequence of mathematical steps, or "set-up," which, if carried out, would yield the correct solution. The computation itself is not required.

Sample Exercises

1.

SAVE
Ice Cream Bars
6 for $1.50

Regular Price
$.30 each

Which of the following represents the amount saved by buying 18 bars at the sale price instead of the regular price?

A (18 × $1.50) − (18 × $.30)
***B** (18 × $.30) − (3 × $1.50)
C (6 × $1.50) − (18 × $.30)
D (18 × $.30) − (6 × $1.50)
E (3 × $1.50) − (6 × 18)

2. A store owner uses the following formula to determine a selling price:

Selling Price = (Cost) + (80% of Cost)

What is the selling price for a product that costs $50?

***A** $90
B $80
C $70
D $60
E None of these

3. Annual Crime Rates for 4 States
(Rates per 100,000 population)

	Murder	Robbery	Assault	Burglary
State I	9.0	240.4	275.8	1579.6
State II	9.0	193.4	250.1	1234.8
State III	8.7	195.9	206.3	1432.1
State IV	9.1	199.2	270.9	1467.1

Approximately how many cases of murder were reported in State IV?

***A** This cannot be determined from the data given.
B 9.1
C 91
D 910
E 9100

Test SS: Analysis of Social Studies Materials (Parts 1 and 2)

Test SS provides evidence of students' ability to analyze and evaluate various kinds of social studies information. In both parts of Test SS, the understandings required to answer the passage-related questions are not directly based on the specific social studies courses students have taken, but rather reflect some of the long-term outcomes of social studies instruction in general.

Part 1 consists of 24 questions that assess students' critical thinking and inquiry skills in the social sciences. Students are asked to distinguish fact from opinion; to recognize the limitations of procedures in the social sciences; and to make judgments about the reliability of sources, about the validity of inferences and conclusions, and about the adequacy of information for reaching conclusions.

Part 2 of Test SS requires students to interpret and evaluate reading materials that they might encounter in textbooks and references, in magazine and newspaper articles, and in social studies literature in general. Among the passages are selections from political science, history, anthropology, sociology, geography, and economics.

As in Part 1, a majority of the questions require higher-order thinking skills; students must see the implications of the ideas presented and evaluate the author's position, purpose, and techniques. For example, several passages present differing viewpoints on the same issue as a basis for students to make comparisons and generalizations. Another selection includes survey results that students must interpret and relate to other information.

Sample Exercises

Part 1

1.

■ *Advertisement* ■

Four out of five doctors surveyed favored

BALM SOAP

Tests show that Balm Soap clears up complexion problems faster than any other product!

On the basis of this advertisement, which of the following conclusions, if any, is valid?

- **A** It has been scientifically demonstrated that the quickest way to get rid of any complexion problem is to use Balm Soap.
- **B** Of the five leading brands of complexion soap, only one is better than Balm Soap from a medical point of view.
- **C** Of all the doctors who recommend skin care products, four out of five recommend Balm Soap.
- ***D** None of these conclusions is valid.

2. Which of these is a statement of fact rather than opinion?

- **A** Inflation is a more serious problem for the country than unemployment.
- **B** Domestic politics should be ruled by different leaders than international politics.
- ***C** More people are now employed in the United States than ever before.
- **D** Like individuals, the national government should keep its budget in balance.

Sample Exercises

Part 2

Prior to a recent presidential election, Newspapers X and Y published the following editorials, and Newspaper Z published a cartoon.

Newspaper X

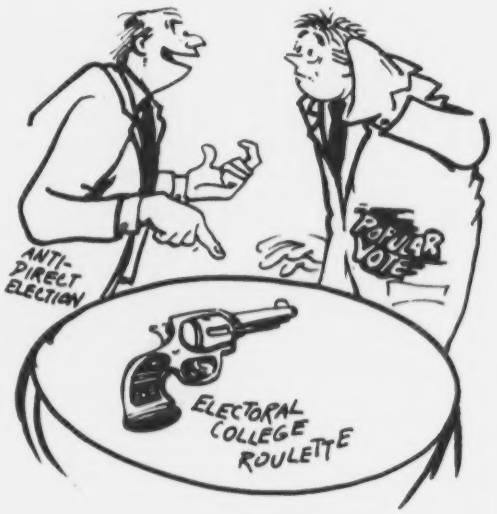
It is time for a change! The electoral college system by which the president of the United States is elected is a broker system. The candidate who wins one more than half of the votes cast in any state wins all of the state's electoral votes. Too often the popular will is distorted. For example, in three presidential elections in our history, candidates have become president even though they had received fewer popular votes than their opponents. Also, two elections had to be settled by the U. S. House of Representatives. The system treats voters unfairly in other ways, too. Our lawmakers must be made to realize that the average person in this country is intelligent and capable of making a choice for president.

Newspaper Y

Many persons wish to replace the electoral college system of electing the president of the United States. They propose a number of arguments against the system based purely on self-interest. These persons hope to gain more political power for themselves or their party. It must be remembered that this system tends to prevent the creation of third parties or splinter parties, which are common in Europe. Further, the electoral college was established to protect the interests of the states. To prevent states from playing their part in the electoral process would decrease their importance. The electoral college system has served the nation quite well. Most importantly, we cannot be sure what effect change would have on our system.

Newspaper Z

"Don't Be Chicken—Try It Just Once More"



Sample Exercises

Part 2 (continued)

1. When Newspaper X speaks of the common people as intelligent and capable, what is being implied?
   - **A** The common people have been treated as equal to political leaders in the past.
   - **B** Only the common people can see the difference between political candidates.
   - ***C** The present electoral system assumes that the common people are unable to vote intelligently.
   - **D** The common people have a greater degree of intelligence and capability than political leaders.

2. What is implied by the statement made in Newspaper Y concerning splinter and third parties?
   - **A** Many third parties and splinter parties have developed under the American system.
   - **B** No third parties or splinter parties have ever existed in the American party system.
   - ***C** These parties are bad for the American system.
   - **D** These parties are good for the American system.

3. Which of the newspapers would probably support proposals for election of the president by direct vote?
   - **A** Newspaper X only
   - **B** Newspaper Z only
   - **C** Both Newspapers X and Y
   - ***D** Both Newspapers X and Z

4. What is the main idea that Newspaper Z wishes to present?
   - **A** The electoral college system never reflects the popular will in presidential elections.
   - ***B** The electoral college system may not always reflect the popular will.
   - **C** Direct election of the president is the only way to solve the problems of the electoral college.
   - **D** The present electoral college system is the best method for electing presidents.

5. The development of the Know-Nothing Party, the Progressive Party, and the American Independent Party makes the arguments of which newspaper(s) less convincing?
   - **A** Newspaper X
   - ***B** Newspaper Y
   - **C** Newspaper Z
   - **D** Both Newspapers Y and Z

6. How can the problem described by Newspaper X arise?
   - ***A** The candidate wins the states with large electoral votes by small popular vote margins.
   - **B** The candidate is able to convince voters to vote for only those electors who have promised to support him or her.
   - **C** The candidate makes deals with electors to vote for him or her rather than as the voters decided.
   - **D** The candidate wins the states with small electoral votes by small popular vote margins.

Test L: Literary Materials

This test assesses some of the significant understandings that high school students may be expected to derive from reading literary materials. The five selections for each level include fiction, nonfiction, and poetry; drama is added in Level II. These selections present a range of styles—humorous, dramatic, philosophical, and satirical. Students are asked not only to interpret the content of a selection but also to demonstrate sensitivity to what makes a particular piece of writing unique or effective.

Sample Exercises

1 Loveliest of trees, the cherry now
2 Is hung with bloom along the bough,
3 And stands about the woodland ride
4 Wearing white for Eastertide.

5 Now, of my threescore years and ten,
6 Twenty will not come again.
7 And take from seventy springs a score,
8 It only leaves me fifty more.

9 And since to look at things in bloom
10 Fifty springs are little room,
11 About the woodlands I will go
12 To see the cherry hung with snow.

1. The poet apparently feels that

   A he will die while still a young man.
   ***B** his life may last many years but still seem short.
   C his life has passed too quickly.
   D his life will end soon.

2. Which of these words is used as a descriptive figure of speech rather than in its usual meaning?

   A "bloom" (line 2)
   B "twenty" (line 6)
   C "woodlands" (line 11)
   ***D** "snow" (line 12)

Sample Exercises (continued)

My mother was small and dainty, with long dark hair that she was very proud of. She had only two faults that I ever knew of—she was vain and she was obstinate—and the fact that these qualities were masked by humility and gentleness prevented my recognizing them till I was a grown man. Father, who was as grey as a badger at thirty-five, and in danger of growing bald, in spite of his clippers, was very jealous of her beautiful dark hair, and whenever he wanted to make her mad he would affect to discover white strands in it. Being an orphan, she had no notion of her own age, and had never known a birthday, but Father had discussed it with my Uncle Tim and satisfied himself that she was several years older than himself. When he believed she was seventy, he got really angry because he was sure she was going to let her vanity deprive her of a perfectly good pension. Mother shrugged this off as another example of his jealousy. To tell the truth, that was what I thought myself. She looked, at the time, like a well-preserved fifty-five. However, to put his mind at rest, I had the date of her birth looked up in the Customs House in Dublin, and discovered that she was only a few months short of seventy. Father was triumphant, but I felt guilty because I feared that the knowledge of her real age would make her become old. I needn't have worried. I think she probably decided finally that though the Registrar of Births and Deaths was a well-intentioned man, he was not particularly bright.

1. What mark of good writing does the author achieve in this paragraph?

   A He lists events in chronological order.
   B He describes settings accurately and completely.
   C He uses vivid figures of speech.
   ***D** He uses incidents to portray character.

2. The tone of the author's description of his mother implies that his memories of her are

   A vague.
   B idealized.
   ***C** fond.
   D bitter.

Test V: Vocabulary

In each of the 40 items on Test V, students choose the best synonym from among five alternatives. Words are presented in context to avoid ambiguity and possible misinterpretation.

Sample Exercises

1. **tepid** water

*A lukewarm
B impure
C foul-smelling
D stagnant
E sterile

2. a **paragon** of wisdom

A book
*B model
C word
D tale
E sign

Test SI: Use of Sources of Information

Test SI evaluates students' ability to use important sources of information. To find and use information efficiently, students need to be familiar with the resources of a well-equipped library; to have knowledge of supplemental sources of information, including private and public agencies; and to possess skill in selecting appropriate sources for specific information. These goals are reflected in the test's main skill categories: mechanics of use and evaluation of sources for various purposes.

Sample Exercises

1. For a paper on safety measures in the home, you need some recent statistics on accidental deaths. The best source for such data would be

*A *The World Almanac.*
B *Encyclopedia Americana.*
C a major weekly news magazine.
D publications of the Bureau of the Census.

2. If you wanted to find a word to describe an attractive individual while avoiding overworked words, it would be best to consult

*A a thesaurus.
B a grammar handbook.
C an abridged dictionary.
D a dictionary of slang.

3.

FRAUD

Beware! Real estate con games at large—again. R. L. Carl. il Ret Liv 16:45–7 My '76

Don't get clipped in an oil scheme. il Changing T 30:41–2 My '76

Marriage counseling: plagued by fraud. U. S. News 81:56 Jl 12 '76

Sales tricks of a con artist. C. R. McCauley, Jr. and M. Handelsman. bibl il Psychol Today 9:78–9+ My '76

Which of these articles includes a list of related articles?

A Beware! Real estate con games at large—again
B Don't get clipped in an oil scheme
C Marriage counseling: plagued by fraud
*D Sales tricks of a con artist

Test NS: Analysis of Natural Science Materials (Parts 1 and 2)

Test NS provides information about students' ability to interpret and evaluate information in the natural sciences, to recognize basic principles of scientific inquiry, and to analyze experimental procedures. The exercises relate to physics, chemistry, botany, zoology, health and medicine, astronomy, and measurement. Recall of specific information plays a small role. Instead, the exercises require students to think critically about diverse kinds of scientific information: to differentiate among hypotheses, facts, assumptions, data, and conclusions; to make inferences and predictions; to evaluate evidence; to see implications; and to generalize experimental results to related situations. These skills are emphasized in both Part 1 and Part 2.

The reading selections in Part 2 are of two general types. The first exemplifies scientific writing in textbooks, references, and periodicals. The second presents descriptions of actual experiments and their results.

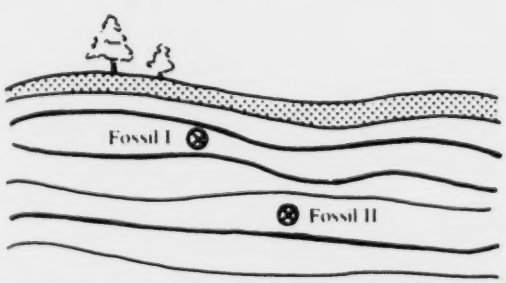
Sample Exercises

Part 1

1. Conservation workers released 98 pheasants in a wildlife preserve. Some weeks later they found the bones of 26 pheasants at the entrance to a fox den in the area. One worker said, "Foxes ate our pheasants." This statement should be regarded as a

   A verified conclusion.
   B scientific observation.
   ***C** hypothesis.
   D fact.

2. Two fossils were found in different layers of rock as shown in the diagram below:



   Which of the following statements is most likely to be true?

   A Fossil I is heavier than Fossil II.
   B Fossil I is older than Fossil II.
   C Fossil II is heavier than Fossil I.
   ***D** Fossil II is older than Fossil I.

Part 2

The effects of a certain food additive were studied using rats. Two groups of very similar rats were used. The 1000 rats in Group I received a specified dose of food additive in their diets every day. The 1000 rats in Group II were given the same diet except that the food additive was omitted. After a certain length of time, it was observed that 20 percent of the rats in Group I and 1 percent of the rats in Group II had developed cancerous growths.

1. An experimental variable is a factor that is systematically varied so that its effects can be observed. What was the experimental variable in this experiment?

   A The time required for the experiment
   B The percentage of rats that developed cancer
   ***C** The diet of the rats
   D The physical environment of the rats

2. Which of the following conclusions is best supported by the data?

   ***A** This food additive probably can cause cancer in rats.
   B This food additive probably can cause cancer in humans.
   C This food additive probably does not cause cancer in rats.
   D This food additive probably does not cause cancer in humans.

Test Development

The development and tryout of items for Forms X–8 and Y–8 of the *ITED* Battery took place over a six-year period preceding the publication of the final forms. All exercises considered for use were first tried out in the Fall Testing Program in Iowa. (Each year, special test units in the subject areas tested by the *ITED* are distributed to large, representative samples of students in high schools throughout Iowa. This permits a substantial amount of statistical data to be gathered for the materials in development. On the basis of tryout results, items and passages are often revised and tried out again.)

The item pool from which the final items were selected was quite large: the 1,076 items that appear in Forms X–8 and Y–8 were selected from a pool of more than 5,000 pretested items. Subject matter and equity specialists from various geographic regions and ethnic/racial backgrounds reviewed the preliminary drafts of the final forms to ensure appropriateness and accuracy of content and to eliminate items that contained the possibility of bias or offense to any group.

> Part 6 of the revised *Teacher, Administrator, and Counselor Manual* (9–60327) describes in detail the history of the *ITED* Battery and the development of the Eighth Edition.

Scores

Nine scores are reported for the Eighth Edition of the *ITED*. Scores are reported for each of the seven test areas (Tests E, Q, SS, NS, L, V, and SI). In addition, a Composite score (C), which is based on the scores from all seven tests, and a Reading Total score (RT) are reported. The Reading Total score is derived from 118 items that are based on reading selections in Test SS (36 items), Test NS (36 items), and Test L (46 items).

Standard Scores

Standard scores are reported for each of the nine scales. These scores permit schools to use Forms X–8 and Y–8 interchangeably. Standard scores are suitable for assessing changes in performance over time.

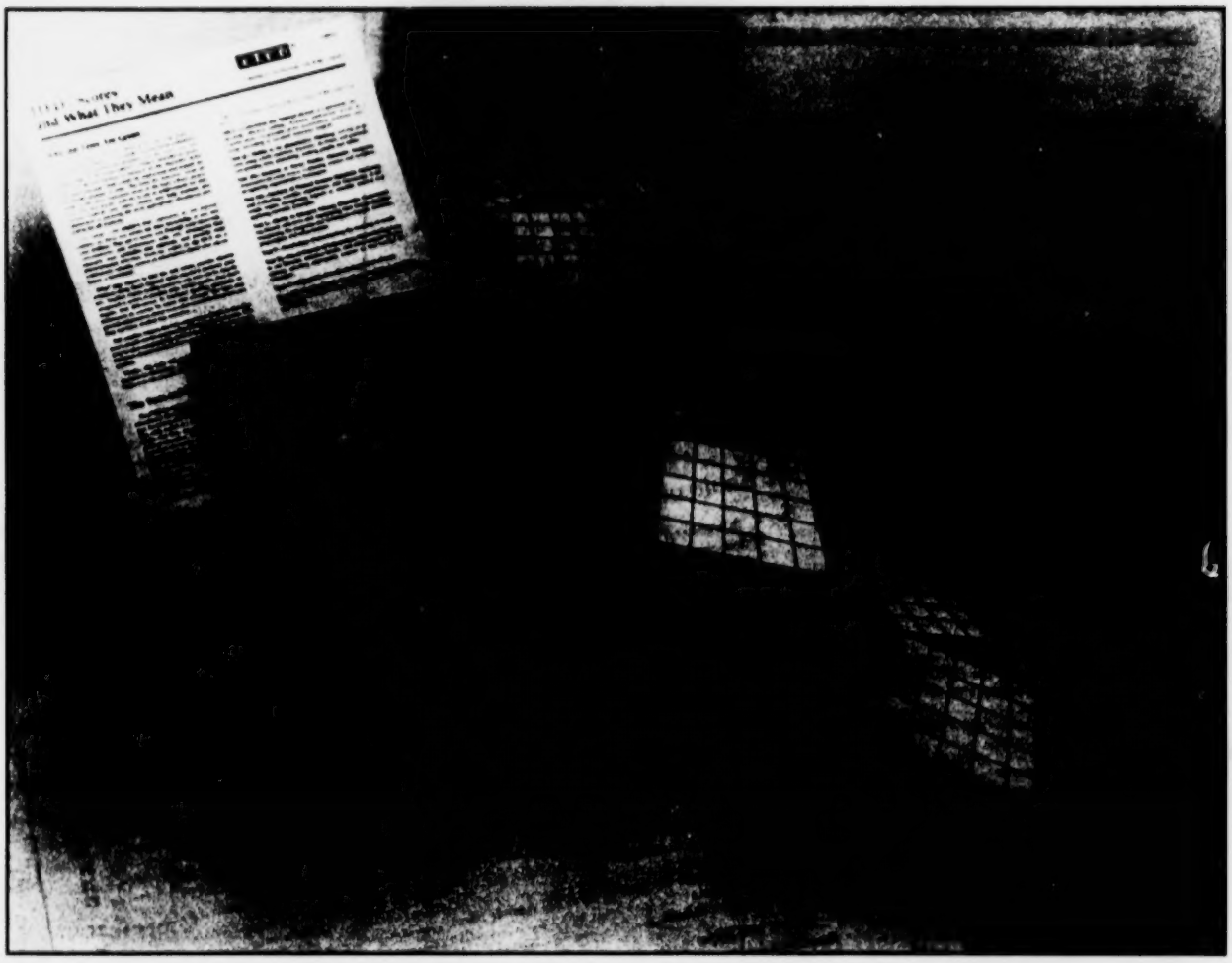
Percentile Ranks

Students' standard scores are compared with the performance of students in a given reference population and ranked. National and local percentile ranks are available. In addition, national percentile ranks for the average standard scores in each grade are provided.

Percent Correct

For each of the battery's 37 skill clusters, the percent of items that a student answered correctly is reported. For groups, the average percent correct is provided for each skill cluster. The reports containing this information also provide the norm group's average percent correct for each skill cluster.

> Pages 37–40 of the *Teacher, Administrator, and Counselor Manual* (9–60327) explain in detail the *ITED* standard score scale, the uses of individual percentile ranks, and two types of percentile ranks for group averages.



Support Materials for Interpreting Test Results

The value of any set of test scores depends to a large degree on the inferences drawn from them. Whether the user is a teacher, a parent, a counselor, or an administrator, sections of the *ITED* manuals and other support materials offer extensive aid in score interpretation and describe appropriate and responsible uses of the results.

Part 5 of the revised *Teacher, Administrator, and Counselor Manual,* for example, contains detailed illustrations of the analysis and use of test data for individual students and for classes. It also models two procedures for looking at longitudinal trends in a school's results. Part 3 of the *Manual* describes a number of ways the Special Code Section of the *ITED* answer sheet can be used to obtain locally designated information.

The *Teacher's Guide to Interpreting ITED Results* is designed to provide teachers with a basic understanding of the appropriate role of standardized achievement test scores—their significance and their limitations. A detailed discussion of one teacher's class results explains the scoring reports for several students. The Individual Profile and Class Group Skills Profile reports are highlighted.

20

BEST COPY AVAILABLE

Teacher's Guide to Interpreting ITED Results

To the Teacher

This guide is intended to provide teachers with a concise overview of the *Iowa Tests of Educational Development*™—their purposes, the scores reported, and the kinds of interpretation that may be made of the results.

Other manuals available to *ITED*™ users are the *Directions for Administration* and the comprehensive *Teacher, Administrator, and Counselor Manual*, which contains detailed descriptions of the tests and their purposes, philosophy, scores, reports, uses, and technical data. Copies of these manuals should be available in all schools.

Table of Contents

Basic Information about the *ITED*™ Battery .....

Part 1 The *ITED* Battery: More than Scores ..
Recognizing the Purposes of the *ITED* Battery

Part 2 What's in a Score? .....
Scores and Norms .....
Standard Scores .....
Percentile Ranks .....
Norms .....

Part 3 Your Score Reports .....
Interpreting and Using the *ITED* Results
How One Teacher Interpreted the *ITED* R
Class Reports .....
Analysis of Individual Profiles .....
Looking at Growth .....

Part 4 Behind the Scores .....
Relating Test Results to Other Informa
The Reading Factor .....
Motivation .....
Test Results and Teachers' Responsi

Part 5 Fairness and Accuracy .....
Technical Information about the *ITE*
Reliability .....
Validity .....
Test Bias .....

Extended examples in Part 3 illustrate classroom-level use of *ITED* results.

Detailed discussions in Part 5 model a variety of possible applications of *ITED* data.

Teacher, Administrator, and Counselor Manual

Table of Contents

Part 1 Nature and Purposes of the *ITED*® Battery 2
Philosophy Underlying the Battery 2
Nature of the Eighth Edition 2
Recommended Uses of the Tests 4

Part 2 Description of the Individual Tests 6
Content of the *ITED* 6
Test Descriptions and Item Classifications 6
Test E: Correctness and Appropriateness of Expression 7
Test Q: Ability to Do Quantitative Thinking 10
Test SS: Analysis of Social Studies Materials 12
Test NS: Analysis of Natural Science Materials 16
Test L: Ability to Interpret Literary Materials 19
Test V: Vocabulary 21
Test SI: Use of Sources of Information 22
Reading Total 22

Part 3 Administering the Local Program 25
To the *ITED* Testing Coordinator 25
Preliminary Arrangements 25
Using the Special Code Sections of the *ITED* Answer Sheet 30
Follow-up Procedures 35
Disseminating Test Results 35

Part 4 Scores and Reports 37
Standard Scores 37
Percentile Ranks 38
Score Reports 40

Part 5 Using the *ITED* Results 53
Using Test Results to Aid Instruction 53
Identifying Individual Needs 54
Identifying Class Needs 55
Identifying Program Needs 56
Using *ITED* Results to Measure Students' Growth 60
Using Test Results for Educational and Vocational Guidance 61
Keeping Test Results in Perspective 63
Conclusion 65

Part 6 Technical Data 66
History and Rationale of the *ITED* 66
Development of Forms X-8 and Y-8 67
Equating Successive Editions of the *ITED* 68
Derivation of the *ITED* National Norms 70
Validity of the Tests 70
Reliability of the Tests 77
Additional Test Characteristics 88
Readability of the *ITED* 88
Ceiling and Floor Effects 91
Speededness 91
Test and Item Bias 96

APPENDIX A Data Base and Methodology for Predicting ACT and SAT Scores 97
APPENDIX B Selected Standard Score Summary Statistics of the 1988 Spring Pupil Norms Distributions 99
APPENDIX C Readability Analysis of the Eighth Edition of the *ITED* 100
APPENDIX D Content and Bias Reviewers 101

BEST COPY AVAILABLE

National Standardization

The *ITED* Battery was standardized in April and May of 1988. More than 17,000 high school students from all parts of the country and from public and nonpublic schools participated.

The Public School Sample

Three stratifying variables were used to classify public school districts across the nation: geographic region, district enrollment, and socioeconomic status (SES) of the community. The four geographic regions were New England/Mideast, Southeast, Great Lakes/Plains, and West/Far West. Within each geographic region, school districts were classified into one of three categories on the basis of a community SES index. The values of this SES index were determined by two factors: (1) median years of education of the population 25 years of age and older, and (2) median family income in thousands of dollars. To derive the SES index, the median figure for years of education was multiplied by six and added to the figure for median family income. This procedure gave approximately equal weight to education and income. A random selection procedure was used to identify several districts within each category of the region-by-size-by-SES matrix. A total of 12,879 students from 28 public school districts in 16 states took part in the standardization. Of these students, 11,563 (89.8 percent) had complete test records.

The Nonpublic School Sample

Within each geographic region, one Catholic high school was selected to participate in the standardization. Several other nonpublic schools from the Southeast and West/Far West regions were also included in the sample. The tests were administered to a total of 4,250 nonpublic school students. Of these, 4,124 examinees (97.0 percent) had complete test records.

Part 3 of the revised *ITED Norms Booklet: Conversion Tables and Standardization Information* (9–60328) describes the standardization sample in detail.

Reliability and Validity

Reliability

Reliabilities vary from test to test and from grade to grade. Internal consistency reliability coefficients for the seven main test areas range from .85 to .94; the Composite reliability is .98.

Content Validity

A test is said to have content validity to the extent that it measures skills that are well matched with the objectives of the school's curriculum. Careful examination of the tests themselves and of the tables of test specifications is the best way for test users to determine whether the *ITED* have content validity for a particular school's purposes. Because the *ITED* measure skills that are commonly considered fundamental to the goals of secondary education, the tests are usually found to have good content validity.

Criterion-Related Validity

Considerable evidence of the strong relationship between *ITED* scores and other measures of achievement, such as elementary school achievement batteries, college admissions tests, and grades in school, is published in Part 6 of the revised *Teacher, Administrator, and Counselor Manual*.

Related topics in the *Teacher, Administrator, and Counselor Manual* (9–60327):

Validity of the Tests: pages 70–76
Reliability of the Tests: pages 77–87
Additional Test Characteristics: pages 88–96

ITED Score Reports

Test scores and summary data yielded by the *ITED* Battery are available to schools in a variety of forms. Some of the reports are designed mainly for student and parent use. Others were planned for the faculty and counseling staff. Still others are of primary interest to school administrators. The table below outlines the many uses of each of the *ITED* score reports.

ITED Score Report Users

	Primary User (1) and Secondary User (2) of Each Scoring Service						
	Students	Parents	Classroom Teachers	Curriculum Coordinators	Building/District Administrators	Counselors	Researchers
1. Grade Group List Report	—	—	2	—	1	2	2
2. Local Percentile Norms	—	—	1	2	1	1	—
3. Grade Group Averages and Percentile Ranks	—	—	—	2	1	2	2
4. Summary Data and Local Percents by Norm Group Interval							
(4) Grade Group	—	—	—	1	1	2	1
(4a) Code Group	—	—	—	1	1	2	1
5. Press-On Labels	—	1	1	—	1	1	—
6. Extra Press-On Labels	—	—	1	—	1	1	—
7A. Individual Profile	1	1	1	—	—	—	—
7B. Counselor's Report	2	—	—	—	—	1	—
8. Class Group List Report	—	—	1	—	1	2	2
9. Class Group Skill Profiles	—	—	1	—	2	—	—
10. Group Skill and Item Profiles							
(10) Grade Group	—	—	2	1	1	—	2
(10a) Code Group	—	—	2	1	1	—	2
11. Student Data Tape	—	—	—	2	1	2	1
12. Answer Sheet Return	—	—	1	—	1	—	—

The table above lists the primary users of score reports with a *1* and secondary users with a *2*.

Related topics in the *Teacher, Administrator, and Counselor Manual* (9–60327):

Score Reports: pages 40–52
Norm-Referenced versus Criterion-Referenced Interpretations of Test Scores: page 4
Using the Special Code Sections of the *ITED Answer Sheet:* pages 30–34

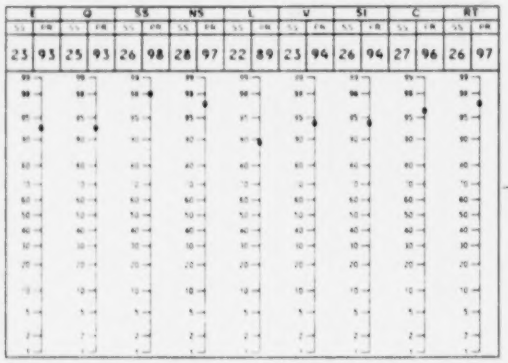
IOWA TESTS OF EDUCATIONAL DEVELOPMENT

INDIVIDUAL PROFILE - BENDAREZ ENRIQUE

SERVICE 7A
Order No. 030199-001

Building WHITMAN HIGH SCHOO
Test Date 09/11/89
Test Level 01
Test Form Y8
Grade 10
Norm Group NATIONAL
Norms FALL

	E		Q		SS		NS		L		V		SI		C		RT	
	SS	PR	SS	PR	SS	PR	SS	PR	SS	PR	SS	PR	SS	PR	SS	PR	SS	PR
	23	93	25	93	26	98	28	97	22	89	23	94	26	94	27	96	26	97



ITED®

SKILL AREAS	Number of Items	Number Attempted	Percent Correct	Norm Average % Correct
Correctness & Appropriateness of Expression (TEST C)	69	69	87	55
Capitalization/Punctuation	12	12	83	57
Grammar	9	9	100	68
Sentence Structure	10	10	80	53
Organization	8	8	100	55
Diction/Clarity/Word Choice	15	15	80	53
Spelling	15	15	87	48
Literary Materials (TEST D)	46	46	80	53
Literal Comprehension	6	6	67	49
Interpretation of Nonliteral Forms	6	6	100	61
Inferences and Relationships	13	13	62	60
Generalizations	5	5	100	56
Literary Techniques/Tone	16	16	88	46
Sources of Information (TEST E)	46	46	89	61
Books	5	5	100	62
Dictionaries	5	5	80	61
Organization of Library Materials	5	5	80	66
Encyclopedias/Almanacs	5	5	80	65
Common References	8	8	88	57
Readers' Guide	7	7	100	50
Maps/Atlases	6	6	83	68
Govt. & Private Agencies	5	5	100	59
Vocabulary (TEST V)	40	40	85	47

SKILL AREAS	Number of Items	Number Attempted	Percent Correct	Norm Average % Correct
Quantitative Thinking (TEST Q)	40	40	83	46
Whole Numbers/Fractions/Decimals	10	10	100	55
Percent	8	8	63	32
Geometry/Measurement	5	5	100	47
Estimation/Rounding	4	4	100	48
Probability/Statistics	4	4	75	41
Exponents	3	3	33	50
Graphs/Tables/Formulas	6	6	83	47
Science (TEST SC)	60	60	90	50
Principles of Inquiry/Measurement	5	5	60	53
Interpretation of Information	7	7	86	49
Inferences and Predictions	10	10	100	50
Classification of Ideas	4	4	100	56
Analysis of Experimental Procedures	23	23	87	50
Evaluation of Evidence	7	7	100	46
Generalization and Extension of Ideas	4	4	100	48
Social Studies (TEST SS)	60	60	93	56
Literal Comprehension	9	9	100	53
Interpretation of Information	11	11	100	60
Inferences and Relationships	10	10	80	48
Classification of Ideas	9	9	100	59
Evaluation of Sources Evidence and Conclusions	14	14	86	56
Author's Position and Techniques	7	7	100	59

Copyright © 1989 The Riverside Publishing Company. All rights reserved.

Students' percentile ranks are plotted on a graph to allow visual representation of their strong and weak areas.

This report shows the percent of items in each skill cluster answered correctly and allows comparison with the norm group average percent correct.

A Special Code Section of the *ITED* answer sheet allows data to be reported for groups that the school may choose to designate. This option can help schools monitor the achievement of special subgroups of students.

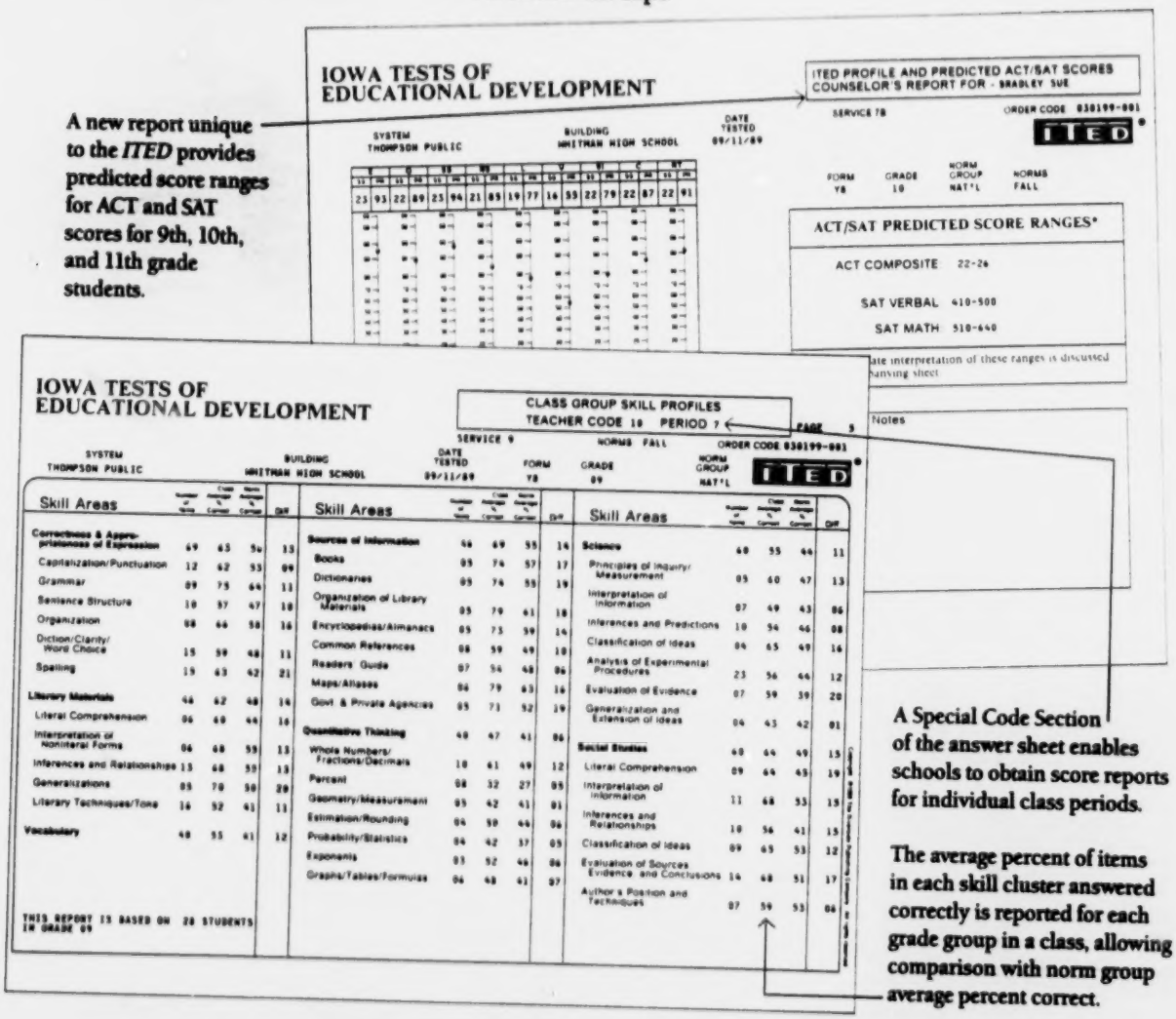
BEST COPY AVAILABLE

Scoring Services Available to *ITED* Users

A variety of score reports are available to meet the needs of teachers, administrators, counselors, students, and parents:

- Predicted ACT/SAT Scores – Counselor's Report
- Grade Group List Report
- Class Group List Report
- Grade Group Averages and Percentile Ranks
- Local Percentile Norms
- Group Summary Data and Local Percents by Norm Group Interval
- Individual Profile
- Class Group Skill Profiles
- Group Skill and Item Profiles
- Press-On Labels
- Student Data Tape

A new report unique to the *ITED* provides predicted score ranges for ACT and SAT scores for 9th, 10th, and 11th grade students.



A Special Code Section of the answer sheet enables schools to obtain score reports for individual class periods.

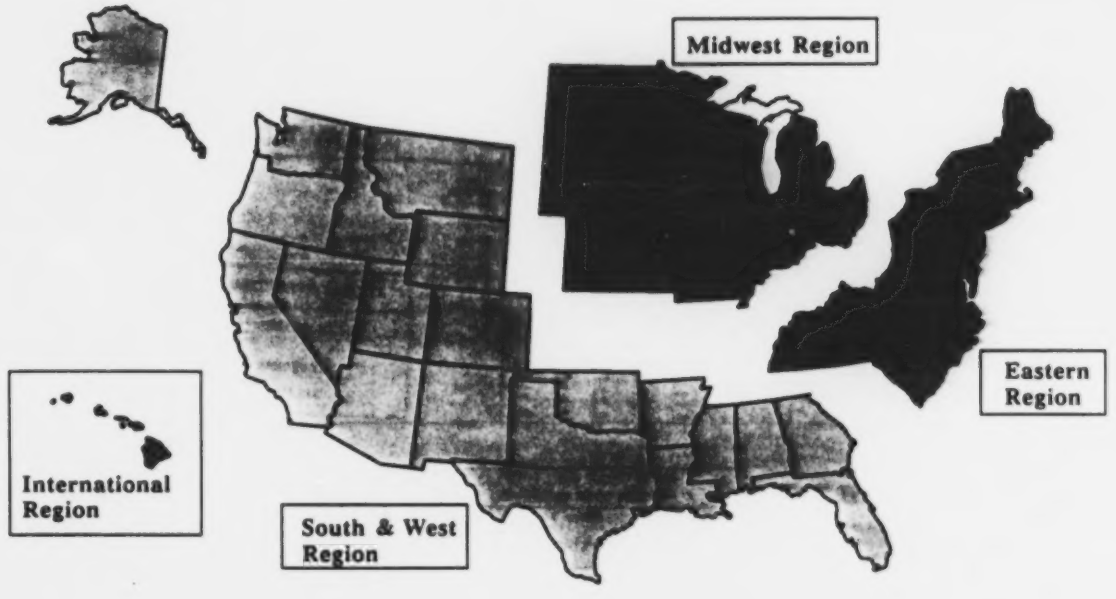
The average percent of items in each skill cluster answered correctly is reported for each grade group in a class, allowing comparison with norm group average percent correct.

BEST COPY AVAILABLE

Ordering Information

The following products are available for the *Iowa Tests of Educational Development*. Call your local representative or The Riverside Publishing Company, 8420 Bryn Mawr Avenue, Chicago, IL 60631 (toll-free telephone number 1-800-323-9540) for more information.

Test Booklets (pkg. of 25 with 1 *Directions for Administration*)	
Form X-8	9-60302
Form Y-8	9-60304
Teacher, Administrator, and Counselor Manual (single copy)	9-60327
Norms Booklet: Conversion Tables and Standardization Information (single copy)	9-60328
Teacher's Guide to Interpreting ITED Results (single copy)	9-60326
ITED Scores and What They Mean (pkg. of 50)	9-60316
Directions for Administration (single copy)	9-60314
Administrator's Summary (single copy)	9-60329
Examination Kit	9-60300
MRC Answer Sheets (pkg. of 50)	
Level I	9-60307
Level II	9-60309



The Riverside Publishing Company Regional Offices

[redacted]

International Region
c/o Houghton Mifflin Company
One Memorial Drive
Cambridge, MA 02142, USA
617/252-3270
Telex: 4430254
Fax: 617/252-3234

[redacted]

South & West Region
2550 Beckleymeade Avenue
Suite 135, LB-14
Dallas, TX 75237
800/442-8855
214/780-7294
Fax: 214/296-2737

[redacted]

Midwest Region
8420 Bryn Mawr Avenue
Chicago, IL 60631
800/323-9540 (except IL)
312/693-0040
Fax: 312/693-0325

[redacted]

Eastern Region
101 Campus Drive
Princeton, NJ 08540
609/520-0600
Fax: 609/520-1667

9-97622

© 1990 The Riverside Publishing Company. All rights reserved.

BEST COPY AVAILABLE

Riverside's Long-Standing Commitment to Educational Measurement

1916 Houghton Mifflin publishes the *Stanford-Binet Intelligence Scale.*

1940 Houghton Mifflin becomes publisher of the *Iowa Tests of Basic Skills®* (*ITBS®*).

1964 Forms 1 and 2 of the high school *Tests of Academic Progress*, later renamed the *Tests of Achievement and Proficiency™* (*TAP®*), are published.

1968 Form 1 of the *Cognitive Abilities Test™* (*CogAT®*) by Robert L. Thorndike and Elizabeth P. Hagen is published.

1970 E. F. Lindquist, lead author of the *ITBS*, receives Educational Testing Service's award for Distinguished Service to Measurement.

1972 Robert L. Thorndike, a Riverside test author, receives Educational Testing Service's award for Distinguished Service to Measurement.

1978 Houghton Mifflin becomes publisher of the *Gates-MacGinitie Reading Tests.*

1979 The Riverside Publishing Company is formed to carry on Houghton Mifflin's commitment to excellence in testing.

1988 Riverside becomes publisher of the *Iowa Tests of Educational Development®* (*ITED®*).

1989 Riverside publishes *A Century of Ability Testing*, a historical perspective by Robert M. Thorndike.

The *National Proficiency Survey™ Series* (*NPSS™*), a series of 13 high school end-of-course tests, is introduced.

Riverside publishes *College BASE*, which assesses mastery of the college core curriculum.

Chronology

The Riverside Press 1852

The Riverside Publishing Company 1979

H. O. Houghton and Company	1849
The Riverside Press acquired	1852
Hurd and Houghton	1864
Houghton, Mifflin and Company	1872
The Riverside Publishing Company	1979

ITED

THE RIVERSIDE
PUBLISHING COMPANY

BEST COPY AVAILABLE